GOVERNMENT OF INDIA
SCIENCE AND TECHNOLOGY
LOK SABHA

UNSTARRED QUESTION NO:4618
ANSWERED ON:22.08.2000
DISCOVERY OF LECTIN BACTERIA
THAAWAR CHAND GEHLOT

Will the Minister of SCIENCE AND TECHNOLOGY be pleased to state:

(a) whether the scientists of Patiala University in Punjab have discovered abacteria named lectin for multiple use in the field of bio-technology;

(b) if so, whether the steps have been taken to patent for this discovery; and

(c) the fields in which this discovery can be used and the advantages likely to be accrued thereby ?

Answer

MINISTER OF STATE IN THE MINISTRY OF SCIENCE AND TECHNOLOGY (SHRI BACHI SINGH RAWAT)

(a), (b) & (c) : A group of scientists from the Department of Biotechnology of Punjabi University, Patiala have identified two bacterial species procured from the Microbial Type Culture Collections at Institute of Microbial Technology, Chandigarh with lectin activity. The lectins have been isolated from two bacterial species and their properties studied. The Punjabi University, Patiala is taking necessary steps for filing the patent. The work was carried out in an UGC sponsored research project given to Punjabi University, Patiala during 1990-1993. Lectins are glycoproteins from living organisms capable of agglutination of blood cells. Different lectins have been isolated from plants at Indian Institute of Science, Bangalore and their structures have been elucidated. Like other lectins so far discovered, the lectins isolated from the above bacterial species have hemagglutination and mitogenic properties. The lectins are useful in development of disease diagnostic kits, crop protection from diseases and applications in pharmaceutical industry.